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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/632,721

08/01/2003

Vladek P. Kasperchik

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03/31/2004

HEWLETT-PACKARD COMPANY

Intellectual Property Administration

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EXAMINER

LORENZO, JERRY A

ART UNIT

PAPER NUMBER

1734

DATE MAILED: 03/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/632,721

Applicant(s)

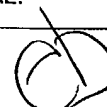
KASPERCHIK ET AL.

Examiner

Jerry A. Lorengo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08/01/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/06/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

(1)

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 12-15, 17-20, 22-24, 29-30, 32-34, 36 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,486,397 to Gordon et al.

Regarding applicant claims 1, 36 and 37, Gordon et al. disclose a method for applying a protective overcoat to a surface of a printed transparency comprising the steps of:

(1) Providing, as per applicant claim 36, a donor web 30 which comprises (column 4, lines 52-60):

- (a) A carrier side comprising a carrier ribbon material 36,38; and
- (b) A transfer side comprising a protective overcoat material 32,33,34;

(2) Providing a printed transparency 10b (column 5, lines 58-65);

(3) Placing the donor web 30 into contact with the printed transparency 10b and applying heat and pressure such that a section of the transfer side 32b,33b,34b is bonded to the surface of the transparency 10b; and

(4) Removing the donor web 30 and remnant transfer side 32a,33a,34a such that the section of the transfer side 32b,33b and 34b is transferred to the surface of the transparency 10b thus forming, as per applicant claim 37, a printed transparency having a protective overcoat (column 4, line 61 to column 5, line 39). The methods and materials disclosed by Gordon et al. are illustrated below:

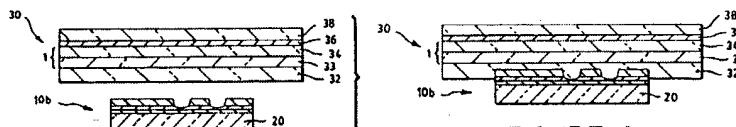


FIGURE 3

FIGURE 4

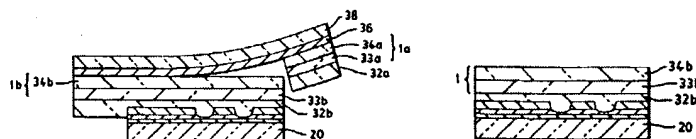


FIGURE 5

FIGURE 6

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Regarding applicant claims 2-6, Gordon et al. disclose that the heat and pressure are applied to the donor web 30 by a heating element 46, comprising a roller, while the section of the transfer side 32,33,34 is positioned against the surface of the transparency 10b which is supported by a base 48 such that the donor web 30 and the transparency 30b are sandwiched between the heating element 46 and the base 48 (Figure 7; column 16, lines 3-18).

Regarding applicant claims 12-14, Gordon et al. disclose that the donor web 30 has a greater surface width and length relative to that of the transparency 10b such that only a subsection of the transfer side 32,33,34 having a surface width and length equal to that exposed by the transparency 10b is adhered thereto and furthermore whereby heat and pressure are only applied by controlled to a subsection of the donor web 30 in an area equivalent to the area exhibited by the transparency 10b (Figure 7; column 8, lines 33-46; column 16, lines 3-18).

Regarding applicant claim 15, Gordon et al. disclose that the base 48 comprises a roller (Figure 7).

Regarding applicant claims 17-20, Gordon et al. disclose that the transfer side 32,33,34 of the donor web 30 comprises more than one layer and that one layer comprises a durable (barrier) layer 34 composed of a thermoplastic resin such as acrylics and which is resistant to penetration by liquid and air (Figure 3; column 7, lines 33-50; column 8, lines 6-12).

Regarding applicant claims 22-24; Gordon et al. disclose that the carrier side 36,38 of the donor web 30 comprises more than one layer wherein one layer 38 comprise a thermoplastic resin material such as polyester (Figure 3; column 5, line 66 to column 6, line 17).

Regarding applicant claim 29, Gordon et al. disclose that the durable layer 34 of the transfer side 32,33,34 improves durability and quality of the surface of the transparency 10b by improving resistance to liquid penetration (column 7, lines 38-50).

Regarding applicant claim 30, Gordon et al. disclose that the adhesive layer 32 of the transfer side 32,33,34 improves durability and quality of the printed image on the transparency by optimizing the adhering of the section of the transfer side 32b,33b to the surface of the printed transparency 10b (Figure 5; column 9, lines 4-26).

Regarding applicant claim 32, Gordon et al. disclose that the donor web 30 comprises a transfer side which may also include a release layer that facilitates release of the section

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32b,33b,34b of the transfer side from the carrier of the donor web 30 (column 8, line 55 to column 9, line 3).

Regarding applicant claim 33, Gordon et al. disclose that the transfer side 32,33,34 of the donor web 30 may comprise an adhesive layer 34 as an exterior layer which enhances the adherence of the section 32b,33b of the transfer side of the donor web 30 to the printed surface of the transparency 10b (column 9, lines 4-26).

Regarding applicant claims 34, Gordon et al. disclose that the heating element 46 comprises a heated roller (Figure 7, column 16, lines 3-18).

(2)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,486,397 to Gordon et al., as set forth in section (1), above, in view of U.S. Patent No. 4,861,409 to Hashida et al.

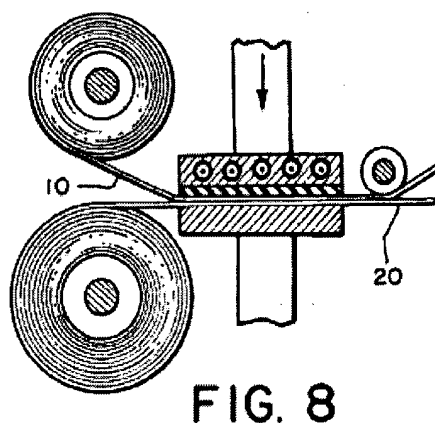
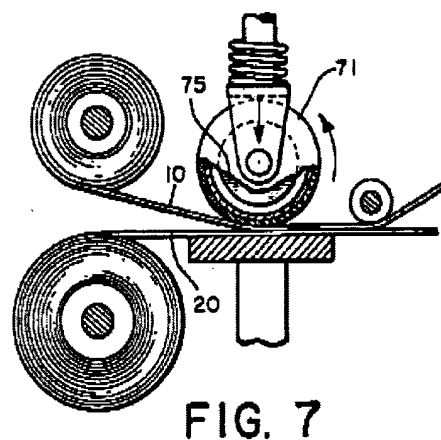
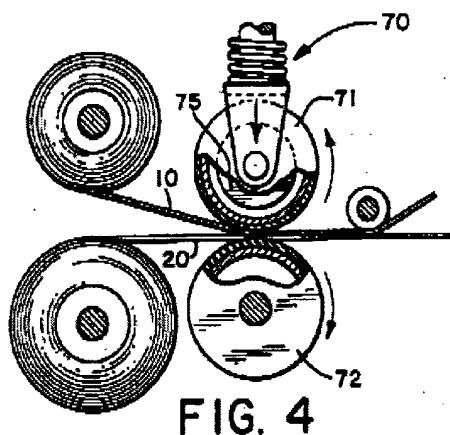
Although the references as combined in section (2), above, do not specifically disclose, as per applicant claims 8-11, that the exterior surface of the roller base comprises a surface material resistant to adhering to the transparent coat film, it would have been obvious to one of ordinary skill in the art at the time of invention to do so motivated by the fact that Hashida et al., also drawn to film lamination apparatus, disclose that the thermocompression bonding rolls used for laminating can be provided with or without a covering of fluorocarbon resin or like non-tacky substance (column 7, lines 36-45). Although neither of the references specifically disclose that the non-tacky substance may comprise silicone oil, the skilled artisan would have appreciated that silicone oil would have represented a form the non-tack substance taught by Hashida et al. motivated by the fact that silicone oil is a well known release coating utilized to render laminating rollers tack-resistant.

(3)

Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,486,397 to Gordon et al., as set forth in section (1), above, in view of U.S. Patent No. 4,724,026 to Nelson.

Although Gordon disclose that the base 48 comprises a roller, they do not specifically disclose, as per applicant claim 16, that the base comprises a platen. Likewise, although Gordon et al. disclose that the pressing element comprises a heated roller, they do not specifically disclose, as per applicant claim 7, that it comprises a die element.

Nonetheless, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize a flat platen in place of the roller base 48 of Gordon et al., or a die element in place of the pressing roller 46 of Gordon et al., motivated by the fact that Nelson, also drawn to apparatus for the transfer lamination of a coating disposed upon a transfer sheet onto a target substrate via heat and pressure lamination, discloses that lamination bases comprising roller rollers or flat platens, i.e., dies, are functional expedients. These functional expedients are illustrated below (Figures 4 and 7; column 4, line 26 to column 5, line 41):



(4)

Claims 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,486,397 to Gordon et al., as set forth in section (1), above, in view of U.S. Patent No. 5,397,634 to Cahill et al.

Although Gordon et al., as set forth in section (1), above, disclose a method for the printing and protective overcoating of a printed transparency via thermal transfer lamination from a donor web, they do not specifically disclose the particulars of the transfer side of the donor web 30 as set forth in applicant claims 25-28.

Cahill et al., however, also drawn to methods for the disposal of transferable protective cover layers, disclose a transfer element (donor web) for use in providing protective layers on imaged substrates (column 4, lines 58-65).

Regarding applicant claims 25-28, Cahill et al. discloses that protective layer may have a textured surface, i.e., smooth and glossy or matte, imparted (applied) to its exterior surface by the carrier sheet which, in effect, stamps its surface profile into the surface of the protective layer (column 3, lines 29-30; column 4, lines 1-14).

It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the textured transfer element (donor web) taught by Cahill et al. in the method disclosed by Gordon et al., motivated by the fact that both Cahill et al. and the references combined above disclose that such transfer elements are useful in manufacturing abrasion resistant printed substrates protected from environmental and ambient effects which degrade the image (column 4, lines 58-65).

(5)

Claims 21, 26, 27 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,486,397 to Gordon et al., as set forth in section (1), above, in further view of U.S. Patent No. 5,203,941 to Spain et al.

Although Gordon et al. disclose a method for the transfer lamination of layer disposed on a carrier film onto a target substrate through heat and pressure lamination with a roller nip, they do not specifically disclose, as per applicant claims 26 and 27, that the method further comprises a step of stamping (embossing) a textured pattern onto an exterior surface of the layer transfer laminated to the surface of the target substrate.

Nonetheless, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the heat roller 46 of Gordon et al. with a surface texture such that, upon transfer lamination of the overcoat from the carrier film to the surface of the target substrate, a texture is embossed (stamped) into the exterior surface of the overcoat layer motivated by the fact that Spain et al., also drawn to apparatus for the transfer lamination of layer disposed on a carrier film onto a target substrate through heat and pressure lamination, discloses that is known increase the decorative effect of transferred coating upon the substrate by providing the upper lamination roller 20 with a textured surface whereby the embossing roller applies pressure to the

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transfer film to transfer the layer to the target substrate while embossing (stamping) three-dimensional indentations in the exterior of the coating transferred to the target substrate (Figure 1; column 5, lines 30-34).

Although neither Gordon et al. do not specifically disclose, as per applicant claim 21, the use of a barrier layer comprised of, for example, PVDF, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize such a material in the barrier (durable) layer 34 of Gordon et al., motivated by the fact that Spain et al. disclose that the use of PVDF in the top coat, i.e., the durable layer, results in a film which is highly weatherable, i.e., resistant to environmental degradation (column 11; lines 4-28; column 18, lines 42-66).

Finally, with regards to applicant claim 35, although Gordon et al. is silent as to the surface of the printed transparency further comprising a layer which optimized the adherence of the transferable coating to facilitate release of the transferable coating from the release carrier of the donor web, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize coatings for enhancement of adherence, such as by primers, adhesives and/or by the chemical/physical treatment of the printed transparency, motivated by the fact that the skilled artisan would have appreciated that incompatibilities between materials, if not rectified by surface treatment or coating, would result in cracking, wrinkling, bubbling, and delamination.

(6)

Claims 31 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,486,397 to Gordon et al., as set forth in section (1), above, in further view of U.S. Patent No. 5,932,352 to Higgins.

Although Gordon et al., as set forth in section (1), above, disclose, as per applicant claims 38, 39 and 40, a donor web and method for its use for the protective overcoating of a printed transparency via thermal transfer lamination, they do not specifically disclose, as per applicant claims 31 and 38, the use of a donor web having a carrier whose outer surface is covered with a lubricant layer.

Nonetheless, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the exterior surface of the carrier layer of the donor web with a lubricating or release layer motivated by the fact that Higgins, drawn to carrier and release film construction, discloses that it is known to dispose a second release or lubricating layer on the exterior surface

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of a carrier film especially when the carrier is used in the formation of a thermal transfer film (Figure 2; column 8, lines 53-58; column 9, lines 47-49).

(7)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry A. Lorengo whose telephone number is (571) 272-1233. The examiner can normally be reached on Monday through Friday, 8:30 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J.A. Lorengo, Primary Examiner

AU-1734

March 20, 2004